

**ABSTRACT**

Through the use of a serial bus processor coupled to memory-mapped registers of a programmable radio interface processor (RIP), the novel radio interface of the present invention overcomes the problem of disparate interfaces between the digital module and the analog section of a wireless communications system. The serial bus processor receives data from a plurality of lookup tables which, in turn, are indexed by data received from the digital module. The serial bus processor then uses data values retrieved from the lookup tables to generate processed control data for controlling the analog section. The lookup tables are programmed with data so to compensate for nonlinearities which may be present in the analog section, but are not accounted for in the digital module.